

I claim:

1. A system for communicating with a wireless device, comprising:

a computer network;

a wireless network configured to enable the wireless device to access the computer network; and

a bookmark beacon that transmits a bookmark data packet to the wireless device, wherein the bookmark data packet includes a resource address that enables the wireless device to retrieve information stored on the computer network.

2. The system of claim 1, further comprising:

a guest device associated with the bookmark beacon, wherein the information stored on the computer network relates to the guest device.

3. The system of claim 2, wherein the guest device is a physical location.

4. The system of claim 3, wherein the physical location is a commercial establishment.

5. The system of claim 2, wherein the resource address enables the wireless device to communicate with the guest device over the computer network.

6. The system of claim 5, wherein the guest device is a printer.

7. The system of claim 5, wherein the guest device is a facsimile machine.

8. The system of claim 2, wherein the resource address enables the wireless device to interact with a software application executing on the computer network that relates to the guest device.
9. The system of claim 8, wherein the guest device is a secure door.
10. The system of claim 8 , wherein the guest device is a point-of-sale device.
11. The system of claim 1, wherein the resource address is an Internet Protocol (IP) address.
12. The system of claim 1, wherein the resource address is a Uniform Resource Locator (URL).
13. The system of claim 1, further comprising:
a proxy server that links the wireless network and the computer network.
14. The system of claim 1, wherein the computer network is an Internet.
15. The system of claim 1, wherein the computer network is an Intranet.
16. The system of claim 1, further comprising:
a server coupled to the computer network, wherein the information retrieved by the wireless device is stored on the server and the resource address enables the wireless device to access the server over the computer network.

17. The system of claim 16, wherein the information is stored on the server in the form of a website and the resource address enables the wireless device to access the website over the computer network.

18. The system of claim 1, wherein the bookmark beacon comprises:

a power source;

a processor coupled to the power source; and

a data transmission means controlled by the processor that transmits the bookmark data packet.

19. The system of claim 18, wherein the data transmission means is an infrared data communicator.

20. The system of claim 19, wherein the infrared data communicator comprises an Infrared Data Association (IrDA) port coupled to the processor.

21. The system of claim 18, wherein the power source is a battery.

22. The system of claim 1, wherein the bookmark beacon comprises a personal computer configured with an IrDA port.

23. A bookmark beacon, comprising:

a power source;

a processor coupled to the power source; and

a data transmission means controlled by the processor that transmits a bookmark data packet;

wherein the bookmark data packet includes a resource address that enables a wireless device to retrieve information stored on a computer network.

24. The bookmark beacon of claim 23, wherein the data transmission means is an infrared data communicator.

25. The bookmark beacon of claim 24, wherein the infrared data communicator comprises an Infrared Data Association (IrDA) port coupled to the processor.

26. The bookmark beacon of claim 23, wherein the power source is a battery.

27. The bookmark beacon of claim 23, wherein the computer network is an Internet.

28. The bookmark beacon of claim 23, wherein the resource address is an Internet Protocol (IP) address.

29. The bookmark beacon of claim 23, wherein the resource address is a Uniform Resource Locator (URL).

30. A system for communicating with a wireless device, comprising:

a guest device;

a computer network;

a wireless network;

a proxy server coupled between the computer network and the wireless network that enables the wireless device to send and receive data over the wireless network to or from the computer network;

a server that stores data associated with the guest device and has a location on the computer network; and

a bookmark beacon that transmits a bookmark data packet to the wireless device, wherein the bookmark data packet includes a resource address that identifies the location of the server on the computer network and enables the wireless device to send or retrieve data associated with the guest device to or from the server.

31. A method for transmitting information associated with a physical location to a wireless device, comprising the steps of:

providing a computer network;

storing information associated with the physical location on the computer network;

providing a wireless network configured to enable the wireless device to access the computer network;

providing a bookmark beacon associated with the physical location that transmits a bookmark data packet, wherein the bookmark data packet includes a resource address that

identifies the location on the computer network where the information associated with the physical location is stored;

receiving the bookmark data packet on the wireless device; and

accessing the computer network with the wireless device and retrieving the information associated with the physical location.

32. The method of claim 31, wherein the physical location is a commercial establishment.

33. The method of claim 31, wherein the wireless device automatically receives the bookmark data packet when the wireless device is within transmission range of the bookmark beacon.

34. A method for enabling a point-of-sale device to communicate with a wireless device, comprising the steps of:

providing a computer network;

providing a network connection between the computer network and the point-of-sale device;

entering information relating to a transaction into the point-of-sale device;

storing the information relating to the transaction at a location on the computer network;

providing a wireless network configured to enable the wireless device to access the computer network;

providing a bookmark beacon associated with the point-of-sale device that transmits a bookmark data packet, wherein the bookmark data packet includes a resource address that

identifies the location on the computer network where the information relating to the transaction is stored;

receiving the bookmark data packet on the wireless device; and

accessing the computer network with the wireless device and retrieving the information relating to the transaction.

35. The method of claim 34, comprising the further step of:

transmitting credit or debit information from the wireless device to the computer network.

36. The method of claim 35, comprising the further step of:

providing software executing on the computer network, wherein the software (1) receives the credit or debit information from the wireless device (2) approves or denies the transaction based on the credit or debit information, and (3) transmits the approval or denial to the point-of-sale device.

37. The method of claim 36, wherein the information relating to the transaction is included in the bookmark data packet and is transmitted to the software along with the credit or debit information.

38. A method for enabling a wireless device to communicate with a printer, comprising the steps of:

providing a computer network;

providing a network connection between the computer network and the printer, wherein the printer has a network address that enables information to be transmitted to the printer over the computer network;

providing a wireless network configured to enable the wireless device to access the computer network;

providing a bookmark beacon associated with the printer that transmits a bookmark data packet, wherein the bookmark data packet includes a resource address that identifies the network address of the printer;

receiving the bookmark data packet on the wireless device; and

transmitting data from the wireless device to the printer over the computer network using the network address.

39. The method of claim 38, wherein the resource address also identifies a location on the computer network where information regarding the printer is stored, and further comprising the step of:

retrieving the information regarding the printer from the computer network with the wireless device, wherein the information enables the wireless device to format the data before transmission to the printer over the computer network such that the data is transmitted in a format associated with the printer.

40. The method of claim 38, wherein the resource address identifies a location on the computer network where information regarding the printer, including the network address of the printer, is stored, and further comprising the step of:

retrieving the information regarding the printer from the computer network with the wireless device, wherein the information (1) provides the wireless device with the network address of the printer, and (2) enables the wireless device to format the data before transmission to the printer over the computer network such that the data is transmitted in a format that can be printed by the printer.

41. A method for enabling a wireless device to communicate with a facsimile machine, comprising the steps of:

providing a bookmark beacon associated with the facsimile machine that transmits a bookmark data packet, wherein the bookmark data packet includes a facsimile number for the facsimile machine;

receiving the bookmark data packet on the wireless device; and

wirelessly transmitting data from the wireless device to the facsimile machine using the facsimile number.

42. A method for enabling a wireless device to communicate with a facsimile machine, comprising the steps of:

providing a computer network;

providing a network connection between the computer network and the facsimile machine, wherein the facsimile machine has a network address that enables information to be transmitted between the facsimile machine and the computer network;

providing a wireless network configured to enable the wireless device to access the computer network;

providing a bookmark beacon associated with the facsimile machine that transmits a bookmark data packet, wherein the bookmark data packet includes a location on the computer network where information regarding the facsimile machine is stored;

retrieving the information regarding the facsimile machine from the computer network with the mobile device, wherein the information includes the network address of the facsimile machine; and

transmitting data from the wireless device to the facsimile machine over the computer network using the network address of the facsimile machine.

43. The method of claim 42, wherein the information regarding the facsimile machine also enables the wireless device to format the data before transmission over the computer network such that the data is transmitted in a format associated with the facsimile machine.

44. A method for opening a secure door with a wireless device, comprising the steps of:

providing a computer network;

providing a network connection between the secure door and the computer network;

providing password software operating at a location on the computer network, wherein the password software is configured to (1) receive passwords over the computer network, and (2) transmit a door open signal to the secure door when a valid password is received;

providing a wireless network configured to enable the wireless device to access the computer network;

providing a bookmark beacon associated with the secure door that transmits a bookmark data packet, wherein the bookmark data packet includes the location on the computer network where the password software is operating;

receiving the bookmark data packet on the wireless device;

transmitting a door password from the wireless device over the computer network to the password software;

determining whether the door password is valid using the password software; and

if the door password is valid, then (1) transmitting the door open signal from the password software to the secure door over the computer network, and (2) unlocking the secure door.

45. The method of claim 44, wherein the password software is also configured to generate a secure door password and transmit the secure door password to the secure door, and further comprising the steps of:

generating the secure door password with the password software;

transmitting a copy of the secure door password to the secure door;

encrypting the copy of the secure door password in the bookmark data packet; and

comparing the copy of the secure door password encryped in the bookmark data packet and the door password transmitted from the wireless device with the secure door password generated by the password software to determine whether the door password is valid.

46. A method for retrieving information on a wireless device, comprising the steps of:

transmitting a bookmark data packet from a bookmark beacon, wherein the bookmark data packet includes a network address for a location on a computer network;

receiving the bookmark data packet on the wireless device;

accessing the computer network with the wireless device over a wireless network, and contacting the location on the computer network identified by the network address; and

retrieving information that is stored at the location on the computer network identified by the network address.

47. The method of claim 46, wherein the step of accessing the computer network is proceeding by the additional steps of:

storing the bookmark data packet on the wireless device; and

enabling a wireless device user to determine whether or not interact with the computer network.

48. The method of claim 46, wherein:

the bookmark beacon is associated with a device or physical location; and

the information stored at the location on the computer network relates to the device or physical location.

49. The method of claim 46, wherein the location on the computer network is an Internet website.

50. An electronic messaging system, comprising:

a plurality of wireless devices;

a computer network;

a wireless network that enables the plurality of wireless devices to access the computer network;

one or more printers coupled to the computer network, wherein each printer has a unique printer address on the computer network;

a bookmark beacon associated with each printer that transmits a bookmark data packet identifying the unique printer address of the associated printer, wherein the bookmark data packet can be received by the plurality of wireless devices; and

a message server having a unique location on the computer network that transmits and receives electronic messages to and from the plurality of wireless devices over the computer network and wireless network, and that is also configured to (a) receive one of the unique printer addresses from one of the wireless devices, and (b) transmit an electronic message identified by the one wireless device over the computer network to the printer associated with the one unique printer address.

51. The system of claim 50, further comprising:

an attachment processor and reformator operating on the message server that (a) receives electronic messages from the message server that include attachments which have been identified for printing by the one wireless device, (b) extracts the attachment from the electronic message, (c) formats the attachment for printing, and (d) transmits the attachment over the computer network to the printer associated with the one unique printer address.

52. The system of claim 51, wherein the message server (1) notifies a wireless device user when an electronic message is received that includes an attachment that is too long to be transmitted to one of the wireless devices, and (2) provides the wireless device user with an option to print the attachment using the attachment processor and reformator.

53. A method for forwarding e-mail attachments to a network printer, comprising the steps of:

- providing a message server on a computer network that has access to a wireless network;
- receiving an e-mail message on a wireless device from the message server with an indication that the e-mail message includes an attachment that was not transmitted to the wireless device;
- receiving a signal on the wireless device from a bookmark beacon associated with the network printer, wherein the signal includes a network address for the network printer;
- transmitting a print request to the message server from the wireless device over the wireless network and computer network, wherein the print request includes the network address for the network printer;
- transmitting the attachment from the message server to the network printer over the computer network; and
- printing the attachment on the network printer.

54. The method of claim 53, wherein communications between the computer network and the wireless network are made through a proxy server.

55. The method of claim 53, wherein the message server includes an attachment processor and reformator configured to (a) receive electronic messages from the message server that include attachments which have been identified for printing by the wireless device, (b) extract the attachment from the electronic message, (c) format the attachment for printing, and (d) transmit the attachment over the computer network to the network printer.

56. An electronic banking system, comprising:

- a plurality of wireless devices;

- a computer network;

- a wireless network that enables the plurality of wireless devices to access the computer network;

- one or more point-of-sale devices coupled to the computer network, wherein each point-of-sale device has a unique address on the computer network, and is configured to (1) receive data regarding a transaction, and (2) receive a credit or debit card number and a personal identification number (PIN) from a wireless device user;

- a bookmark beacon associated with each point-of-sale device, wherein each bookmark beacon is configured to transmit a bookmark data packet including (1) the unique address of the associated point-of-sale device, (2) any received transaction data, and (3) the credit or debit card number and PIN entered by the wireless device user;

- a server having a unique location on the computer network that is configured to (a) receive the data packet from one of the wireless devices, (b) verify the PIN and credit or debit card number, (c) approve or deny the transaction, and (d) transmit the approval or denial to one of the point-of-sale devices over the computer network.

57. The electronic banking system of claim 56, wherein the communications between the wireless network and the computer network take place through a proxy server.

58. The electronic banking system of claim 56, wherein the server is located on the Internet.

59. The electronic banking system of claim 56, further comprising:

a network location affiliated with a financial institution or credit/debit card clearing house, wherein the server transfers the data packet to the network location and the network location (a) verifies the PIN and credit or debit card number, (b) approves or denies the transaction, and (c) transmits the approval or denial to the point-of-sale device over the computer network.

60. The electronic banking system of claim 56, wherein:

the point-of-sale devices are not coupled to the computer network;

the bookmark beacon associated with each point-of-sale device is configured to both (1) transmit the bookmark data packet and (2) receive a verification data packet from one of the plurality of wireless devices; and

the approval or denial is transmitted to the one point-of-sale device by (1) transmitting the approval or denial to the one wireless device over the computer network and wireless network, and then (2) transmitting the approval or denial from the one wireless device to the bookmark beacon.